

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-9. (canceled).

10. (currently amended): A method of screening an agonist for or an antagonist to a G protein-coupled receptor protein comprising ~~the same or substantially the same amino acid sequence as the amino acid sequence represented by~~ SEQ ID NO: 1; or a salt thereof, which comprises:

~~using (1) _____ contacting said the receptor protein or its partial peptide, or a salt thereof with an ionizable metal element in the presence and in the absence of and (2) a compound or element or a salt thereof; and~~

~~(2) _____ measuring that changes the binding property of said receptor protein or a salt thereof to an the ionizable metal element or a the salt thereof, or signal transduction mediated by said receptor protein or a salt thereof; wherein~~

~~if the amount of binding of the ionizable metal element to the receptor protein or the signal transduction of said receptor protein is less or more in the presence of the compound or element or the salt thereof, then the compound or element or the salt thereof is a potential agonist or antagonist of the receptor protein.~~

11-39. (canceled).

40. (new): The method according to claim 10, further comprising:
contacting a cell containing or expressing a G protein-coupled receptor protein comprising the amino acid sequence of SEQ ID NO: 1 or a salt thereof with a test compound in the presence and the absence of the ionizable metal element, wherein the test compound is the potential agonist or antagonist; and
measuring cell-stimulating activity of the test compound, wherein
if the test compound has cell stimulating activity, then the test compound is an agonist of the receptor protein and if the test compound does not have cell stimulating activity, then the test compound is an antagonist.

41. (new): The method according to claim 40, wherein said cell-stimulating activity is an activity that promotes or suppresses arachidonic acid release, acetylcholine release, intracellular Ca^{2+} release, intracellular cAMP production, intracellular cGMP production, inositol phosphate production, cell membrane potential, phosphorylation of intracellular proteins, activation of c-fos, pH reduction, or an action of promoting the secretion of cytokines from a cell expressing the receptor protein.

42. (new): The method according to claim 41, wherein said cell-stimulating activity is the activity that promotes or suppresses arachidonic acid release, intracellular Ca^{2+} release or intracellular cAMP production, or an action of promoting the secretion of cytokines from the cell expressing the receptor protein.

43. (new): The method according to claim 10, wherein said ionizable metal is cadmium, zinc, copper or nickel.

44. (new): The method according to claim 43, wherein said ionizable metal is a radioisotope of cadmium, zinc, copper or nickel.